



National Nutrient Database for Standard Reference

Release 28 slightly revised May, 2016

Statistics Report 09152, Lemon juice, raw

Report Date: June 30, 2017 12:07 EDT

Nutrient values and weights are for edible portion.

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Proximates													
Water ^{1 2}	g	92.31	6	0.259	92	92.87	1.0	89.021	95.596	2	Analytical or derived from analytical	--	11/2009
Energy	kcal	22	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
Energy	kJ	91	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
Protein ^{1 2}	g	0.35	6	0.003	0.3	0.4	1.0	0.307	0.387	2	Analytical or derived from analytical	--	11/2009
Total lipid (fat) ^{1 2}	g	0.24	6	0.164	0.05	0.48	1.0	-1.842	2.319	2	Analytical or derived from analytical	--	11/2009
Ash ^{1 2}	g	0.21	6	0.043	0.15	0.3	1.0	-0.333	0.748	2	Analytical or derived from analytical	--	11/2009
Carbohydrate, by difference	g	6.90	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
Fiber, total dietary ^{1 2}	g	0.3	6	0.092	0.1	0.5	1.0	-0.884	1.441	2	Analytical or derived from analytical	--	11/2009
Sugars, total ¹	g	2.52	4	0.105	2.21	2.7	3.0	2.182	2.85	1	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Sucrose 1	g	0.43	4	0.120	0.07	0.6	3.0	0.047	0.81	1	Analytical or derived from analytical	--	11/2009
Glucose (dextrose) 1	g	0.99	4	0.013	0.96	1.02	3.0	0.949	1.031	1	Analytical or derived from analytical	--	11/2009
Fructose 1	g	1.10	4	0.032	1.02	1.17	3.0	0.997	1.198	1	Analytical or derived from analytical	--	11/2009
Lactose 1	g	0.00	4	0.000	0	0	--	--	--	1	Analytical or derived from analytical	--	11/2009
Maltose 1	g	0.00	4	0.000	0	0	--	--	--	1	Analytical or derived from analytical	--	11/2009
Galactose 1	g	0.00	4	0.000	0	0	--	--	--	1	Analytical or derived from analytical	--	11/2009
Starch 1	g	0.00	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Minerals													
Calcium, Ca 1 2	mg	6	6	2.150	3	9	1.0	-21.118	33.518	2	Analytical or derived from analytical	--	11/2009
Iron, Fe 1	mg	0.08	4	0.005	0.07	0.09	3.0	0.06	0.093	1	Analytical or derived from analytical	--	11/2009
Magnesium, Mg 1 2	mg	6	6	0.915	3	8	1.0	-5.991	17.261	2	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Phosphorus, P 1 2	mg	8	6	2.865	4	11	1.0	-28.693	44.113	2	Analytical or derived from analytical	--	11/2009
Potassium, K 1 2	mg	103	8	6.063	53	145	1.0	26.181	180.244	2	Analytical or derived from analytical	--	11/2009
Sodium, Na	mg	1	15	0.178	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Zinc, Zn 1 2	mg	0.05	6	0.021	0.02	0.08	1.0	-0.223	0.317	2	Analytical or derived from analytical	--	11/2009
Copper, Cu 1 2	mg	0.016	6	0.003	0.01	0.02	1.0	-0.021	0.052	2	Analytical or derived from analytical	--	11/2009
Manganese, Mn 1 2	mg	0.012	6	0.005	0	0.02	1.0	-0.054	0.079	2	Analytical or derived from analytical	--	11/2009
Selenium, Se	µg	0.1	--	--	--	--	--	--	--	--	Calculated or imputed	--	12/1997
Vitamins													
Vitamin C, total ascorbic acid 1 2	mg	38.7	8	2.474	32.1	43.3	1.0	7.24	70.107	2	Analytical or derived from analytical	--	11/2009
Thiamin 1 2	mg	0.024	6	0.006	0.01	0.03	1.0	-0.047	0.096	2	Analytical or derived from analytical	--	11/2009
Riboflavin 1	mg	0.015	4	0.000	0.01	0.01	--	--	--	1	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Niacin 1 2	mg	0.091	6	0.006	0.07	0.1	1.0	0.012	0.171	2	Analytical or derived from analytical	--	11/2009
Pantothenic acid 1 2	mg	0.131	6	0.016	0.11	0.15	1.0	-0.075	0.338	2	Analytical or derived from analytical	--	11/2009
Vitamin B-6 1 2	mg	0.046	6	0.006	0.04	0.05	1.0	-0.034	0.125	2	Analytical or derived from analytical	--	11/2009
Folate, total 1 2 a	μg	20	4	6.298	12	34	1.0	-60.071	99.966	2	Analytical or derived from analytical	--	11/2009
Folic acid	μg	0	--	--	--	--	--	--	--	--	Assumed zero	--	01/2001
Folate, food	μg	20	4	6.298	12	34	1.0	-60.071	99.966	2	Analytical or derived from analytical	--	11/2009
Folate, DFE	μg	20	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
Choline, total	mg	5.1	--	--	--	--	--	--	--	--	Calculated or imputed	09160	02/2007
Vitamin B-12	μg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	08/1982
Vitamin B-12, added	μg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	09/2004
Vitamin A, RAE 1	μg	0	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Retinol	μg	0	--	--	--	--	--	--	--	--	Assumed zero	--	06/2002
Carotene, beta 1	μg	1	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per 100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Carotene, alpha ¹	µg	0	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Cryptoxanthin, beta ¹	µg	4	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Vitamin A, IU ¹	IU	6	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Lycopene ¹	µg	0	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Lutein + zeaxanthin ¹	µg	15	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Vitamin E (alpha-tocopherol)	mg	0.15	--	--	--	--	--	--	--	--	Calculated or imputed	09202	02/2003
Vitamin E, added	mg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	09/2004
Vitamin D (D2 + D3)	µg	0.0	--	--	--	--	--	--	--	--	Assumed zero	--	11/2008
Vitamin D	IU	0	--	--	--	--	--	--	--	--	Assumed zero	--	02/2009
Vitamin K (phylloquinone)	µg	0.0	--	--	--	--	--	--	--	--	Calculated or imputed	09153	02/2003
Lipids													
Fatty acids, total saturated	g	0.040	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
4:0	g	0.000	--	--	--	--	--	--	--	--	Calculated or imputed	--	02/1995
6:0 ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
8:0 1	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
10:0 1	g	0.020	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
12:0 1	g	0.001	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
14:0 1	g	0.002	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
15:0 1	g	0.001	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
16:0 1	g	0.012	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
17:0 1	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:0 1	g	0.004	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
20:0 1	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
22:0 1	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
24:0 ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Fatty acids, total monounsaturated	g	0.006	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
14:1 ¹	g	0.002	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
15:1 ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
16:1 undifferentiated ¹	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
16:1 c ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
16:1 t ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
17:1 ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:1 undifferentiated ¹	g	0.004	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:1 c ¹	g	0.004	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
18:1 t ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
20:1 ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
22:1 undifferentiated ¹	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
22:1 c ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
22:1 t ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
24:1 c ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Fatty acids, total polyunsaturated	g	0.021	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
18:2 undifferentiated ¹	g	0.012	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:2 n-6 c,c ¹	g	0.012	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:2 CLAs ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
18:2 t not further defined ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:3 undifferentiated ¹	g	0.009	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:3 n-3 c,c,c (ALA) ¹	g	0.009	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:3 n-6 c,c,c ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
18:4 ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
20:2 n-6 c,c ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
20:3 undifferentiated ¹	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
20:3 n-6 ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
20:4 undifferentiated ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
20:5 n-3 (EPA) ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
22:4 ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
22:5 n-3 (DPA) ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
22:6 n-3 (DHA) ¹	g	0.000	1	--	--	--	--	--	--	--	Analytical or derived from analytical	--	11/2009
Fatty acids, total trans	g	0.000	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
Fatty acids, total trans-monoenoic	g	0.000	--	--	--	--	--	--	--	--	Calculated or imputed	--	11/2009
Cholesterol	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	08/1982
Other													
Alcohol, ethyl	g	0.0	--	--	--	--	--	--	--	--	Assumed zero	--	04/1985
Caffeine	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	02/2003
Theobromine	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	02/2003

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Flavonoids													
Flavan-3-ols													
(+)-Catechin	mg	0.0	--	--	0	0	--	--	--	--	--	--	--
Flavanones													
Eriodictyol ^{3 4 5}	mg	4.9	--	0.19	0	14.7	--	--	--	--	--	--	--
Hesperetin ^{3 4 5}	mg	14.5	--	4.83	1.9	142.24	--	--	--	--	--	--	--
Naringenin ^{3 5}	mg	1.4	--	0.72	0	18.22	--	--	--	--	--	--	--
Flavones													
Apigenin ^{3 6}	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Luteolin ⁶	mg	0.0	--	--	0	0	--	--	--	--	--	--	--
Flavonols													
Kaempferol ⁶	mg	0.0	--	--	0	0	--	--	--	--	--	--	--
Myricetin ⁶	mg	0.0	--	--	0	0.05	--	--	--	--	--	--	--
Quercetin ^{3 6}	mg	0.4	--	0.21	0	1.81	--	--	--	--	--	--	--
Isoflavones													
Daidzein ⁷	mg	0.00	--	--	0	0	--	--	--	--	--	--	--
Genistein ⁷	mg	0.00	--	--	0	0	--	--	--	--	--	--	--
Total isoflavones ⁷	mg	0.00	--	--	0	0	--	--	--	--	--	--	--

Sources of Data

¹Nutrient Data Laboratory, ARS, USDA National Food and Nutrient Anlaysis Program Wave 12h, 2008 Beltsville MD

²Produce Marketing Association (PMA) Nutrient Content of Raw Lemon/Juice, 1990

³Berhow, M., Tisserat, B., Kanes, K., and Vandercook, C. Survey of phenolic compounds produced in citrus., 1998 Technical Bulletin Number 1856, ARS, USDA, December 1998.

⁴Grandi, R., Trifiro, A., Gherardi, S. Calza, M., and Saccani G. Characterization of lemon juice on the basis of flavonoid content., 1994 Fruit Processing 11 pp.355-359

⁵Mouly, P. P., Arzouyan, C. R., Gaydou, E. M., and Estienne, J. M. Differentiation of citrus juices by factorial discriminant analysis using liquid chromatography of flavanone glycosides., 1994 J. Agric. Food Chem. 42 pp.70-79

⁶Hertog, M. G. L., Hollman, P. C. H., and van de Putte, B. Content of potentially anticarcinogenic flavonoids of tea infusions, wines, and fruit juices., 1993 J. Agric. Food Chem. 41 pp.1242-1246

⁷Liggins, J., Bluck, L. J. C., Runswick, S., Atkinson, C., Coward, W. A., Bingham, S. A. Daidzein and genistein content of fruits and nuts., 2000 J. Nutr. Biochem. 11 pp.326-331

Footnotes

^a Mean value contains data based on the analysis of 5-methyltetrahydrofolate plus total folate determined microbiologically